that will place his name hereafter by the side of the greatest names in science, and is redecting, perhaps, more benor, upon his country than all the politicians who all the newspapers and men's mouths.

In connection with this subject, I may mention Dr. Le Conte's paper on the Gulf Stream, which attracted a great deal of attention, and has been promuced one of the most valuable papers of the session. The paper shows how the Gulf Stream has built the peninsula of Florida, and how its affecting and slowly changing the climate of Europe. I must refer you to the paper itself for further details. Of this, as of the coast survey, one may ask the question where, in any division of the world, do you find science applied to such noble, such practical results?

You will find the geological character of the Southern boundary well laid down in the paper by Mr. Schott, one of Colonel Emory's party on his expedition. A few months, or perhaps years, hence, you will have these papers published in thick volumes octavo, and our worthy members of Congress will make an honest penny by selling them will have the satisfaction of getting at their pith in a coping of columns.

I am compelled to pass over several other important papers that were read yesterday on various branches of science. I must stop, however, to pay a compliment to Professor Welcott Gibbs, whose communication on the ammenia coball bases is pronounced by experienced chemists to be one of the most valuable papers presented to the association. It has involved not only great knowledge and remarkable powers of philosophical discrimination, but research of the most careful and lavorious character; and his colleagues say that, considering the severa duties which Professor Gibbs is discharging at New York, it reflects uncommon eredit upon him, and justifies the German prediction that he would prove a shining light in his peculiar branch of science.

A further movement is, I understand, about to be made with a view to effect a general assimilation of the coinage, weights, measures and standards of the commercial world. It is proposed to form an association consisting of the nost eminent persons in the country, which shall be placed in possession of the whole subject, and shall be authorized to memorralize Congress, and take what measures may be deemed it to oring the matter properly before foreign governments. Of such a project there is but one remark to make. No corporate body can, in fact, possess executive activity; and if we wait till associations remodel our coinage, and give us uniform weights and measures, we may wait till doomsday. If, indeed, such an association as is projected could obtain the services of a man whose character stood high enough to inspire respect, and whose capacities grasped the whole subject—who could to the authority of the association unite the vigor of the one man power—then I should hope something from the scheme. But where is such a man to be found?

Sixth Day's Proceedings. ALBANY, Aug. 26, 1856.

fersor Pierce in the chair.
section subdivided itself into two sub-sections-

SUB-SECTION OF MATHEMATICS AND ASTRONOMY.

Professor HORSHORD in the chair.

Mr. E. B. ELLIOTT read two papers, entitled

1. Tables of Prussian mortality interpolated for annual

indies, and contrasted them with the improved methods now presented. He illustrated the difference by diagrams representing the intensity of mortality in various communities by curves. He then discussed different methods for deducing from the ratio of the dying to the living, within certain intervals of age, the probability that one living at the earlier age will attain the later; and indicated an accurate method for accomplishing that end, whether the deaths for the period be increasing uniform or decreasing. Next pointed out an abridged method for computing average duration of life, life annuities and other useful tables, from population and mortality returns, thereby reducing the labor of weeks to hours, and giving results almost identical with those obtained by tedious interpolation. Below are annexed, for comparison, a copy of the results obtained by the different methods.

Age. Abridged Methods. By Interpolation. Age. Abridged Methods. By Interpolation. 14.42 41.40 41.49 22 43.43 34.31 35. 27.49 27.39 27.

which Prof. Alexander, Prof. McCoy and Prof. Pierce took part.

Mr. J. E. Hingard then discussed the terrestrial magnetic elements for the United States, from observations in the Coast Survey and others.

THE COAST SCHVEY.

At the close of his remarks Prof. Pierce said that he would got let the present occasion pass without remarking how much they owed to the Coast Survey. It was, he said, the greatest work that had ever been undertaken, or that was in progress at the present time.

Prof. Alexanders would add that it does less per mile than the survey of the lands of the United States. He could only compare the survey, in respect of its nicety to the operation of the chemist who saw a tear fall from the eye of a beautiful girl, and though half of it eva porated, analyzed the remainder, and told what were the elements of which it consisted.

Prof. Henry and Dr. Wyckoff joined in the same strain. Prof. A. D. Bache, the head of the Coast Survey, who was present, was visibly affected by this just appreciation of his noble labors.

The sub section then adjourned.

ABSTRACT OF PROF. ALEXANDER'S COMMUNICATION

his noble labors.

The sub section then adjourned.

ABSTRACT OF PROF. ALEXANDER'S COMMUNICATION ON THE LOST PLANET BETWEEN MARS AND JUPITER—FRESENTED AUG. 25, 1856.

In this paper Protessor ALEXANDER succincity re-stated the principal features of his hypothesis advanced hast year, viz. that there was originally but one planet between Mars and Jupiter, and that this, instead of the ordinary form, approximating closely to asphere, had the shape much like that of a very thin wafer, the equatorial diameter being enormous in comparison with the polar. In one determination of the equatorial diameter he made use of the mass of the planet derived from a new relation of masses and distances, which itself seemed to be a consequence of the nebular hypothesis. Four other determinations were, however, given in that connexion, but that which included the most extensive resations was also the most consistent with other and independent results.

The other method of obtaining the equatorial diameter consisted, as before, in determining and applying the difference of the velocities of those asteroids which approach meat nearly to one, and live in their aphelia and perihelia respectively.

The two independent results were as follows:—

[75,094] Equatorial diameter must have been very small, as it was independent of the density. With a density equal to that of the earth, it would be only from about \$5 to 11 j. miles. No less than eleven facts were stated, which this hypothesis would reconcile. The recently discovered and the inclination of the orbit of the original planet was deduced anew, and found to be about 4 dog. 29 min.

SECTION OF EXCLOSEY AND ETHNOLOGY.

and the inclination of the orbit of the original planes was deduced anew, and found to be about 4 deg. 29 min.

SECTION OF ROOLOWY AND ETHNOLOGY.

Prof. Anderson in the chair.

Mr. Hexay R. Schoolukart began to read a paper on the structure of the Algonomia language.

Fethura-trons.

The following paper was then read by J. H. Corris on so called petrifactions.—

Descriptions of potrilled human bodies are occasionally published in American newspapers, which to those who have observed bodies which have been changed into adipocire, are applicable in svery particular to this substance.

A correspondent of the Rushville, In. Republican, mentions the following came of petrifaction of a human body:—

A core of this kind was winessed by the writer, in this county, a few years ago. The subject a boy about sixteen years of age, had been huried about seven years. The skin and muscless on the neck, body and extremities, except the skin in some piaces showing a smooth and in others a wrinkled appearance. The whole land, by some process, here converted into stone. One of the arms was with some difficulty detached from the body, and carefully washed and migning detached from the body, and carefully washed and migning detached from the body, and carefully washed and migning detached from the body, and carefully washed and migning detached from the body, and carefully washed and migning detached from the body, and carefully washed and migning detached from the body, and carefully washed and migning detached from the body.

water, containing the leating body, seven years after use interment.

Interesting remarks were made on this paper by Profs.

Housework and Guideles.

Frof. Schaffer, of Cincinnati, said he knew of a case at Cincinnati where a gentleman I ad had occasion to disinter his wife some time after burial; he found her body quite petrified. The circumstance had been kept quiet for fear of alarming the community, was might not like this dispersion of under dead.

of alarming the community, who might not like this dispress of unfit dead.

The next paper in order was by Professor Agassiz. It
was the third and concluding portion of his communication on animal developement, being a sketch of one-celled
animals.

He said that thirty years had elapsed since Sohwan had
discovered that the ussues of animals and plants were the
same and were all composed of cells. Ever since that
time the investigation of the similarity had been the enter
object of physiological study. About twelve years ago
it was first suggested that there might be animals as well
as plants consisting of one cell only. Now, there was no
point in physiology of greater importance than the obtaining a clear insight into the character and furctions of cells.
If it ever was shown that a cell was an organized being
with power of reproducing itself, with a specific character
all its own, the importance of cells in animals which are
composed of many cells would at once become far greater
than it ever has been. We proceed in two opposite directions to recognize the importance of distributed cells in If it ever was shown that a cell was an organized being with power of reproducing itself, with a specific character all its own, the importance of cells in asimals with a recomposed of many cells would at once become far greater than it ever has been. We proceed in two opposite directions to recognise the importance of individual cells in the economy of animated beings; and hence we must ask the question—are there any one celled aligh, which combine as above that there exist one celled aligh, which combine as an erproduce new individuals of their species. No doubt was left, therefore, of the existence of one celled plants. Botanists in Manich, in England and else where had placed the fact beyond controversy that there were plants which had but one celled plants. Botanists in Manich, in England and else where had placed the fact beyond controversy that there were plants which had but one celled plants. Unfortunately, their is restigations on these points had not placed the matter beyond question, for they had not placed the matter beyond question, for they had not proved that the beings in question were in reality animals and not plants. They take for granted that the infusoria in which class they found their one celled animals, are animals; but that was disputed. He, for one, did not believe that there was any group in the animal world to which the name of infusoria which have no alimentary canal must be removed from the list of animals and recommendation of the statement of the matter beyond question, for they had not believe that there was any group in the animal world to which the name of infusoria which have no alimentary canal must be removed from the mind and plants. They was disputed to the common the manich of the property applied. Brown has proved that many types which were formerly classed as infusoria which have no alimentary canal could be detected, and he had been enabled to see these hatched from the could be animal within detached itself from the countered but and the could be animal within detac

Professor Agas "s said that the was a most important question. At one time the mode of bringing forth young was made the basis of a classification of animals; those which brought forth young being in one class, and those which brought forth young being in another. Progress has since been mace; zoologists are now aware that neither is there any relationship between the animals which bring forth in like manner, nor, on the other hand, does a contrast in this respect imply difference of class. Among oviparous animals some species are found among viviparous animals. Some species are found among viviparous animals. Some onakes, for instance, lay eggs, while others bring forth their young completely formed. Can it then be said that oviparity or viviparity contitutes a radical disterence, or may they not both occur in the same family? Iff viviparity or oviparity indicated any relationship, we should be obliged to admit that an affinity exists between vipers and quadrupeds, or between other snakes and birds, which lay eggs; but, if we follow out the nevelopement, we shall soon find that no affinity whatever exists between them at the sinal period when the embryo or the new being becomes in dependent.

The section then adjourned.

SUB-SECTION OF PHYSICS, CHEMISTRY, ITC.
Prof. Bannand in the chair.
Ir. Wondort Guiss presented a paper on researches on on the ammonia cobalt bases by himself and Dr. F. A. Genth
It led to a long discussion, which was purely technical in its character.
The next paper read was the plan of the reduction of the meteorological observations reported to the Smithsonian Institution by Jamis H. Coffix.
The Section then adjourned.

AFTERNOON SESSION.
There was no general meeting this afternoon; on assembling the members dispersed into the several sections.

GEOLOGICAL SECTION.
POSSIL WHALES.
Dr. HAMMIN. of Maine. Presented some remains of

sheed may be obserted upon the cylind are don't provide the providers of the cylind are don't provide the cyli the policies, "mapple with moster Proposets and normalized images and the control of the control

considerable danger; bence the credit to be given to !

Mitchell may be measured. The results of these obsertions have not yet been worked out in all their detail, the conclusions from them are perfectly safe, are of the highest importance. It turns that this growth of the Hook is not an accidental phemenon, but goes on regularly, and according to determ able laws. The amount of increase deponds upon variety and the causer, but the general fact is that it increases yet year; and the cause of this is a remarkable nor wardly current, the amount and duartion of which the observations assign along both shores of the Hook, outer one extending across the whole breadth of Fa. Hook channel with varying velocity, and the one insult of the Hook extending nearly one third of the distant across Sandy Hook bay. These currents run to the north during both the ebb and flood tide, with varying rates, and result from those tides directly and indirectly rates, and result from those tides directly and indirectly

Turties, as a group, are quite remarkable. They a
re circumscribed within fixed limits that no naturalist he
rever thought of doubting the boundaries of the group. It
so well fixed as that of birds, though the birds are a clas
while the turties are only an order. To review the va
one views that have been taken of surtica-one authoriconsiders them as a class, bocause they differ from
another (Brognart) calls them the highest order of a re
itient class, in which barrachina are also included;
third (Blainville) divides reptiles into two classes—owith scales, the other without—this latter, of coarse, it
cluding fregs and toads. Are they a class or are they
order? That is a question which ne one can answe
Zoologists may give individual opinions on the point; b
a positive answer cannot be obtained. If he was wro
on this point, he would be happy to stand corrected.

In general, zoologists had called the more comprehesive groups, classes; the next lower divisions, order
and the next, families. The divisions were predicated on
on an idea that animals were a mass whos could be
viced and audivided like a solid cube. Now, the fe
was that in nature, there were no such quantitative, at
thing the grounds of division were wholly qualitative, at
the there was no philosophical reason for subordinati
one division to another, until it was clearly shown th
these qualities were inferior in the one to the other.

The learned Professor them proceeded to show how t
various naturalists have classified turtles; how diver
their arrangement is, and how irreconclicable with a
true divisional enhance to each other; some were a
their arrangement is, and how irreconclicable with a
true divisional sharscteristics of the animals. He won
one we proceed to show that turtles were an order, we
two aub orders—marine and terrestrial, or fresh wat
turtles. Cuvier on one occasion uttered the sentiline
that all divisions in the animal kingdom shouldabe has
not always followed out the principle which he
reason discounts in the animal kingdom were
la